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DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Announcement of Requirements and Registration for: “Innovations in Measuring and Managing Addiction Treatment Quality” Challenge

AUTHORITY: 15 U.S.C. 3719

AWARD APPROVING OFFICIAL: Dr. Nora Volkow, Director, National Institute on Drug Abuse (NIDA)

SUMMARY: Through the “Innovations in Measuring and Managing Addiction Treatment Quality” Challenge (the “Challenge”), the National Institute on Drug Abuse (NIDA), a component of the National Institutes of Health (NIH), challenges the general public to make concrete advances toward improving the quality of addiction treatment. Specifically, through this Challenge, NIDA hopes to incentivize the development of innovative concepts for quality measurement and quality management systems based on the latest science of addiction and its treatment and of quality measurement and management. These new concepts would be game-changing because they would go beyond current performance measurement concepts in that they would not be limited by the data commonly available in current provider and payer data systems. Instead, they would (a) more directly reflect the clinical effects that can and should be expected from high-quality addiction treatment; (b) capture what clinicians and provider organizations need to measure to help them provide high-quality addiction treatment; and (c) provide a

solid basis for measuring clinician and provider performance that may be used by patients and other purchasers to select and incent high-quality treatment. NIDA believes that the development of such quality measures and management systems has the potential to meaningfully improve the quality of addiction treatment both by giving clinicians and providers the information they need to assess and improve the quality of the care they provide and by providing tools patients and purchasers can use to shop for the highest quality providers, allowing market forces to provide another incentive for improvement.

DATES:

- 1) Submission Period begins [INSERT DATE OF PUBLICATION IN THE
FEDERAL REGISTER], 9:00 a.m., ET
- 2) Submission Period ends June 1, 2015, 5:00 p.m., ET
- 3) Judging Period June 2, 2015 and July 15, 2015, 2015
- 4) Winners Announced September 30, 2015

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SUPPLEMENTARY INFORMATION:

Subject of the Challenge

Scientific knowledge about addiction and its treatment has increased markedly over the past several years. We have a better understanding of the effects of drugs on the brain. We also have new, more effective treatments. At the same time, new health care payment and delivery models are emerging that may provide opportunities to further enhance the quality of addiction treatment.

It has long been recognized that health care may be improved through the development and use of quality measures and management systems through which they can be collected, reported, monitored, and improved [Ref.1]. Quality measures are meant to reflect aspects of the care provided, or outcomes achieved that assess the health care quality. Health care quality has been defined as “the degree to which health care services for individuals and populations increase the likelihood of desired outcomes and are consistent with current professional knowledge” [Ref 2.]. In 2006 the Institute of Medicine recommended developing and implementing a quality measurement and reporting infrastructure as part of an overall strategy for enhancing the care provided in the field of addiction treatment [Ref. 3]. It is also the case that the availability of strong quality measures, as described below, and management systems through which they can be reported, monitored, and acted upon, is a vital component of payment and delivery reforms in the public and private sectors [Ref. 4].

Controlling the growth of health care costs without adversely affecting care requires strong quality measures. Strong quality measures are those that can be directly improved by clinicians, treatment programs, and/or health care systems. Such quality

measures either directly or indirectly (as proxy measures) measure aspects of patient functioning, health, or well-being, improvements in which are strongly and causally related to desired improvements in patient functioning, health or well-being. Strong quality measures may also be used by patients and payers to select high-quality providers thereby promoting change in the marketplace [Ref. 5].

Traditionally, three types of measures have been used to track aspects of treatment quality: Structural measures, process measures, and outcome measures [Ref. 6]. In the United States, quality measurement in addiction treatment largely has focused on process measures which measure the actual care provided, for example whether or not a patient received a certain medication, and outcome measures which measure how patients responded to treatment.

The most commonly used process measures in addiction treatment are the Washington Circle treatment initiation and engagement measures, both of which seek to measure the quality of initial care provided within health plans or treatment systems [Ref. 7]. Under the Washington Circle treatment initiation measure, the standard is met when a patient receives a treatment visit within 14 days of diagnosis, while the standard under the engagement measure is met when a patient has two or more visits within 30 days of that initial treatment visit. Some state substance abuse treatment agencies have used these measures to provide feedback to providers to aid their quality improvement efforts or incentivize improvements via performance-based contracting [Ref. 8]. Still, the most recent National Committee on Quality Assurance *State of Health Care Quality* report shows that less than 15 percent of insured patients received care that met the engagement measure standard in commercial, Medicaid, and Medicare health plans in 2012, rates

similar to those achieved in 2004 [Ref. 9]. Moreover, there is limited evidence of a causal relationship between having met either standard and improvements in patients' functioning, health, or well-being.

Another commonly used process measure of addiction treatment quality - the length of stay in treatment – has likewise shown limited evidence of effectiveness [Ref. 10].

The most prominent outcome measure initiative is the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Outcome Measures (NOMs). The NOMs are based on administrative data that states are required to report to SAMHSA. They assess the extent of changes in measures such as drug use, homelessness, and employment between time of treatment admission and time of discharge. While measures of initial treatment attendance, length of stay in treatment, and changes in use and other outcomes between admission and discharge meet important needs, they are insufficient to assess key aspects of providers' contributions to the outcomes of care. Importantly, they do not signal to providers and systems what they need to do clinically to improve the quality of addiction treatment to the highest possible level. Specifically, they do not answer the following questions fundamental to informing providers how to improve the care they provide to patients, many of whom have a chronic, relapsing, disorder and may require multiple treatment episodes:

- What clinical effects can reasonably be expected from high-quality, state-of-the-art addiction treatment? How can these clinical effects be measured? Abstinence is thought by many to be the ultimate outcome and goal of treatment. But, to date, there is no type of treatment that has been scientifically shown to deliver complete and

sustained abstinence, after a single episode of care, every time, even under ideal conditions. Absent that, it is critical to determine and measure what changes high-quality treatment can and should deliver in patients with a condition that can be chronic and relapsing. What clinical changes significantly improve the chances a patient will progress toward reduced use, sustained abstinence and improvements in other important goals often crucial to recovery, such as improved health, employment performance, and healthy relationships, over time?

- How can improvements in this measure or set of measures be achieved, both clinically and within a provider setting or system of care? While development and specification of measures are important, equally important is a carefully thought-out and comprehensive conceptual framework or model. Such a model would address the following types of questions: What would it take for the proposed measures to be useful in improving quality? What does a clinician need to do so the patient can improve on this measure? What resources, including data collection, storage, and analysis, are needed to use the measures to assess quality and improve care? What are the likely current levels of this measure and how much might it be improved? What unintended consequences might result from attempts to improve this measure? What might be the effect on the provider industry when providers begin to improve this measure?
- How could patients and payers use these measures to help them select and incent providers? Informed purchasing by patients and payers is key to most efforts in the United States that seek to improve quality and control costs. Accurate quality measures are essential to these efforts. How can the proposed measures be tailored to

the characteristics of individual patients? How can they be fairly compared across providers? How can they be presented in a way that patients and payers can readily obtain and use them to make decisions?

- How might these measures and systems be evaluated and improved once they are implemented? Research can provide important information about how measures and systems are likely to work. But it is also important to understand how measures and systems are implemented in non-research settings and how they perform there. In addition, quality measurement and managements systems must often be dynamic. Measures may need to be dropped or replaced because they either have been improved as much as possible or did not work as intended. Measures may also need to be updated to incorporate new knowledge about addiction and its treatment, or because of changes in how care is delivered and paid for. How might these types of evaluation and improvements occur within the proposed measurement and management system?

NIDA is seeking innovative, forward-looking concepts synthesizing the latest scientific findings from a broad array of relevant disciplines to address these questions.

Statutory Authority of the Funding Source

This Challenge is consistent with and advances the mission of NIDA as described in 42 U.S.C. 285o. The general purpose of NIDA is to conduct and support biomedical and behavioral research and health services research, research training, and health information dissemination with respect to the prevention of drug abuse and the treatment of drug abusers. Consistent with this authority, one of NIDA's strategic goals is to support research to improve the quality of addiction treatment. Novel measures,

conceptual models, and related research agendas that achieve the goals underlying this Challenge will rely on the latest science and help set priorities for future research and, accordingly, will support this strategic goal.

Rules for Participating in the Challenge

1. To be eligible to win a prize under this Challenge, an individual or entity:
 - a. Shall have registered to participate in the Challenge under the rules promulgated by NIDA and published in this Notice;
 - b. Shall have complied with all the requirements in this Notice;
 - c. In the case of a private entity, shall be incorporated in and maintain a primary place of business in the United States, and in the case of an individual, whether participating singly or in a group, shall be a citizen or permanent resident of the United States. However, non-U.S. citizens and non-permanent residents can participate as a member of a team that otherwise satisfies the eligibility criteria. Non-U.S. citizens and non-permanent residents are not eligible to win a monetary prize (in whole or in part). Their participation as part of a winning team, if applicable, may be recognized when the results are announced.
 - d. In the case of an individual, whether participating singly or in a group, must be at least 18 years old at the time of entry;
 - e. May not be a Federal entity.
 - f. May not be a Federal employee acting within the scope of his/her employment, and further, in the case of HHS employees, may not work on their submission(s) during assigned duty hours;

- g. May not be an employee of the National Institutes of Health (NIH), a judge of the Challenge, or any other party involved with the design, production, execution, or distribution of the Challenge or the immediate family of such a party (i.e., spouse, parent, step-parent, child, or step-child).
- 2. Federal grantees may not use Federal funds to develop their Challenge submissions unless use of such funds is consistent with the purpose of their grant award and specifically requested to do so due to the Challenge design.
- 3. Federal contractors may not use Federal funds from a contract to develop their Challenge submissions or to fund efforts in support of their Challenge submission.
- 4. Submissions must not infringe upon any copyright or any other rights of any third party. Each participant warrants that he or she is the sole author and owner of the work and that the work is wholly original.
- 5. By participating in this Challenge, each individual (whether competing singly or in a group) and entity agree to assume any and all risks and waive claims against the Federal Government and its related entities (as defined in the COMPETES Act), except in the case of willful misconduct, for any injury, death, damage, or loss of property, revenue, or profits, whether direct, indirect, or consequential, arising from their participation in the Challenge, whether the injury, death, damage, or loss arises through negligence or otherwise.
- 6. Based on the subject matter of the Challenge, the type of work that it will possibly require, as well as an analysis of the likelihood of any claims for death, bodily injury, or property damage, or loss potentially resulting from Challenge participation, no individual (whether competing singly or in a group) or entity participating in the

- Challenge is required to obtain liability insurance or demonstrate financial responsibility in order to participate in this Challenge.
7. By participating in this Challenge, each individual (whether competing singly or in a group) or entity agrees to indemnify the Federal Government against third party claims for damages arising from or related to Challenge activities.
 8. An individual or entity shall not be deemed ineligible because the individual or entity used Federal facilities or consulted with Federal employees during the Challenge if the facilities and employees are made available to all individuals and entities participating in the Challenge on an equitable basis.
 9. Each individual (whether competing singly or in a group) or entity retains title and full ownership in and to their submission and each participant expressly reserves all intellectual property rights (e.g., copyright) in their submission. However, each participant grants to NIDA, and others acting on behalf of NIDA, a royalty-free non-exclusive worldwide license to use, copy for use, and display publicly all parts of the submission for the purposes of the Challenge. This license may include posting or linking to the submission on the official NIDA Web site and making it available for use by the public.
 10. The NIH reserves the right, in its sole discretion, to (a) cancel, suspend, or modify the Challenge, and/or (b) not award any prizes if no entries are deemed worthy.
 11. Each individual (whether competing singly or in a group) or entity agrees to follow applicable local, State, and Federal laws and regulations.
 12. Each individual (whether participating singly or in a group) and entity participating in this Challenge must comply with all terms and conditions of these rules, and

participation in this Challenge constitutes each such participant's full and unconditional agreement to abide by these rules. Winning is contingent upon fulfilling all requirements herein.

Submission Requirements

Each submission for this Challenge should consist of a white paper describing a concept for an innovative quality measurement and management system to measure, manage, and improve the quality of clinical care in addiction treatment. The white paper must describe a novel concept based on the latest findings from relevant areas of science. It must include the following two sections:

1. A description of candidate clinical effects of addiction treatment and how these effects could be measured (directly or by proxy); a discussion of the likely level of these measures in the current treatment system, how much improvement might be achievable, how the measure(s) could conceivably be implemented, now or in the future, to improve the quality of care; how the resulting information could conceivably be used to help patients and payers select providers; and how the proposed measures and systems might be evaluated and improved once implemented.
2. A research agenda addressing the current state of relevant scientific knowledge; the gaps that need to be addressed to support the development, testing, and use of these novel concepts, measures, and systems; and a plan and an estimated timeframe for filling those gaps.

The white paper must not contain any information directly identifying the participants.

Registration and Submission Process

To register for this Challenge, participants must go to www.challenge.gov and search for “Innovations in Measuring and Managing Addiction Treatment Quality Challenge”. Click on the title to go to the Challenge platform Web site, which contains instructions on how to register and submit.

All submissions must be in English. Each submission must consist of a PDF file, containing the white paper document. The PDF documents must be formatted to be no larger than 8.5” by 11.0”, with at least 1 inch margins. The white paper must be no more than 20 pages long. Font size must be no smaller than 11 point Arial. The participant must not use HHS’s logo or official seal or the logo of NIH or NIDA in the submission, and must not claim federal government endorsement.

Amount of the Prize

Up to four monetary prizes may be awarded: \$35,000 for 1st Place, \$30,000 for 2nd Place, \$25,000 for 3rd Place, and \$10,000 for Honorable Mention for a total prize award pool of up to \$100,000. The names of the winners and the titles of their submissions will be posted on the NIDA web site. In addition, NIDA may work with winners and a peer-reviewed journal to publish articles based on the white papers in a special issue on the future of quality measurement and management systems in the field of addiction treatment. The award approving official for this Challenge is the Director of the National Institute on Drug Abuse.

Payment of the Prize

Prizes awarded under this Challenge will be paid by electronic funds transfer and may be subject to Federal income taxes. The NIH will comply with the Internal Revenue Service withholding and reporting requirements, where applicable.

Basis upon Which Winner Will Be Selected

The judging panel will make recommendations to the Award Approving Official based upon the following five criteria and point allocation:

1. Novelty of the concept (5 points): Concepts are to move beyond the existing quality measurement and management paradigms and administrative data elements commonly used in the addiction treatment field. They are to focus on clinical effects that can be obtained as a direct result of treatment in the context of what is often a chronic, relapsing condition. How novel is the concept? Does it address important clinical effects that are not currently or adequately considered in existing quality measurement and improvement efforts in the addiction treatment field?
2. Clinical effectiveness of the concept (5 points): Are changes in the identified effects something that high-quality treatment could conceivably affect in a meaningful way? How effective would improvements in these clinical effects likely be in addressing addiction and improving other outcomes important to patients and other purchasers of care?
3. Scientific basis for the concept (5 points): Concepts must rely on the latest scientific understanding of addiction and its treatment from a broad range of fields, as well as the latest science of quality measurement and management. How meaningfully, comprehensively, and effectively does the concept incorporate these latest advances in areas of science relevant to addiction, its treatment, and quality improvement?
4. Quality of the conceptual model (5 points): How well is the conceptual framework or model developed? How well does it consider factors relevant to the ultimate success of the concept? How well does it address the clinical means for improving the

- candidate measures and potential unintended consequences of implementing the measures and using them to inform, gauge, and reward improvement? How well does it address the likely impact of improvements in these measures on the provider industry?
5. Potential for the concept to be implemented and evaluated (5 points): Concepts, and the measures and systems derived from them, must have the potential to be implemented and used in at least some types of treatment programs or other settings once all relevant research gaps have been addressed. Is it within the realm of possibility that these concepts, measures, or quality improvement systems could be implemented in at least some organizations once all of the research gaps have been addressed? How useful would the measures be to patients and payers making purchasing decisions? How reasonable is the plan for how the measures and systems could be evaluated and improved once implemented?
 6. Quality of the research agenda (5 points): How well does the research agenda describe the gaps in the relevant areas of science that need to be addressed for this novel quality measurement and management concept to be achieved and implemented? Does the agenda describe a logical, feasible plan and timeframe for addressing those gaps?

Scores from each criterion will be weighted equally. The score for each submission will be the sum of the scores from each of the 5 voting judges, for a maximum of 150 points. NIH reserves the right to make an award to submissions scoring less than 150 points if NIH deems any sufficiently meritorious. All submissions will be held until after the deadline is reached for a simultaneous judging process. NIH reserves

the right to disqualify and remove any submission that is deemed, in the judging panel's discretion, inappropriate, offensive, defamatory, or demeaning.

The evaluation process will begin by anonymizing and removing those that are not responsive to this Challenge or not in compliance with all rules of eligibility. Submissions that are responsive and in compliance may then undergo a review by NIH program staff with expertise in the relevant areas of science. These program staff would be asked to comment specifically on the soundness of the scientific basis for the project, the likelihood that any scientific advances needed for the concept to meet fruition are within the realm of possibility, and the quality of the research agenda, all as they relate to the program official's area of expertise. Judges will examine all responsive and compliant submissions, as well comments from program staff, if any, and score the entries in accordance with the judging criteria outlined above. Judges will meet to discuss the most meritorious submissions. Final recommendations will be determined by a vote of the judges.

Challenge Judges:

Director, National Institute on Drug Abuse – Ex Officio

Deputy Director, Center for Clinical Trials Network, National Institute on Drug Abuse

Acting Director, Division of Epidemiology, Services, and Prevention Research, National
Institute on Drug Abuse

Chief, Science Policy Branch, Office of Science Policy and Communication, National
Institute on Drug Abuse

Program Officer, Behavioral and Integrative Treatment Branch (BITB), Division of
Clinical Neuroscience and Behavioral Research, National Institute of Drug Abuse

Program Director for Health Services Research, Division of Treatment and Recovery
Research, National Institute on Alcohol Abuse and Alcoholism

Additional Information (References):

1. Eddy, 1998. "Performance Measurement: Problems and Solutions." *Health Affairs* 17(4): 7-25.
2. Institute of Medicine, 1999. *Measuring the Quality of Health Care: A Statement by the National Roundtable on Health Care Quality*. Washington DC: National Academy Press.
3. Institute of Medicine (US) Committee on Crossing the Quality Chasm Adaptation to Mental Health and Addictive Disorders, 2006. *Improving Quality of Health Care for Mental and Substance-Use Conditions*. Washington DC: National Academies Press.
4. Fisher et al., 2011. "Building a Path to Accountable Care", *New England Journal of Medicine* 365:2445-2447
5. McClellan, 2011. "Reforming Payments to Healthcare Providers: The Key to Slowing Healthcare Cost Growth while Improving Quality?" *The Journal of Economic Perspectives* 25(2): 69-92.
6. Donabedian A, 1980. *Explorations in Quality Assessment and Monitoring: The Definition of Quality and Approaches to its Assessment*. Ann Arbor, MI. Health Administration Press.
7. Garnick DW, et al., 2002. "Establishing the Feasibility of Performance Measures for Alcohol and Other Drugs." *Journal of Substance Abuse Treatment* 23(4):375-385.

8. Garnick, DW, et al., 2011. "Lessons from Five States: Public Sector Use of the Washington Circle Performance Measures." Journal of Substance Abuse Treatment. 40(3):241-254.
9. National Committee on Quality Assurance, 2013. Improving Quality and Patient Experience: The State of Health Care Quality 2013. Washington, DC.
10. Harris, AHS, et al., 2012 Longer LOS is Not Associated with Better Outcomes in VHA's Substance Abuse Residential Rehabilitation Treatment Programs. Journal of Behavioral Health Services Research 39(1): 68-79.

Dated: January 5, 2015.

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National Institutes of Health.

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